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  NEWS
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                  Apr 08
Apr 09
  NEWS 14
                    Apr 09
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Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
BIOSIS Gene Names now available in TOXCENTER
Federal Research in Progress (FEDRIP) now available
New e-mail delivery for search results now available
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  NEWS 15
  NEWS 16
NEWS 17
                  Apr 22
Apr 22
  NEWS 19
                    Jun 03
                                   MEDLINE Reload
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  NEWS 21 Jun 10
 NEWS EXPRESS Pebruary 1 CURRENT WINDOWS VERSION IS V6.0d,
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002

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=> s dumoutier L?/au or louahed J?/au or Renauld J?/au
L1 431 DUMOUTIER L?/AU OR LOUAHED J?/AU OR RENAULD J?/AU
 => s l1 and stat?
                         71 L1 AND STAT?
=> s 12 and TIF
L3 11 L2 AND TIF
=> dup rem 13
PROCESSING COMPLETED FOR L3
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           ANSWER 1 OF 7 CAPLUS COPYRIGHT 2002 ACS SION NUMBER: 2002:214923 CAPLUS
 ACCESSION NUMBER:
 DOCUMENT NUMBER:
                                                    136:246402
 TITLE:
                                                    Isolated nucleic acid molecules which encode T cell
                                                    inducible factors (TIFs), the proteins encoded, and uses thereof in prepn. of antibodies and
                                                    immunogens and in study of STAT activation and interleukin-9 effects
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Dumoutier, Laure; Louhed, Jamila;
Renauld, Jean-Christophe
Ludwig Institute for Cancer Research, USA
U.S., 23 pp., Cont.-in-part of U.S. Ser. No. 178,973.
CODEN: USXXAM
INVENTOR(S):
PATENT ASSIGNEE(S):
 SOURCE:
 DOCUMENT TYPE:
                                                                                     English
 LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                                                                                                                                  APPLICATION NO. DATE
                 PATENT NO.
                                                                          KIND DATE
                  US 6359117
                                                                             В1
                                                                                               20020319
                                                                                                                                                  US 1999-354243
                                                                                                                                                                                                           19990716
                                                                                                                                                  US 1998-178973
                                                                                               20010814
                  US 6274710
                                                                              B1
                             2000024758 A1 20000504 WO 1999-US24424 19991018
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, FL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BP, BJ, CP, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
9965206 A1 20000515 AU 1999-65206 19991018
9914777 A 20010703 BR 1999-14777 19991018
1131333 A1 20010912 EP 1999-953231 19991018
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, II, LU, NL, SE, MC, PT,
                  WO 2000024758
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                                                                                                                                                  WO 1999-US24424
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                  AU 9965206
                  EP 1131333
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US 6331613 B1 20011218 US 1999-419568 19991018
US 2001024652 A1 20010927 US 2000-751797 20001229
PRIORITY APPLN. INFO.: US 1998-178973 A2 19981026
              US 6331613 B1 20011218 US 1999-419568 19991018
US 2001024652 A1 20010927 US 2000-751797 20001229

DRITY APPLN. INFO.: US 1998-178973 A2 19981026
US 1999-3154243 A 19990716
US 1999-3154243 A 19990716
US 1999-19568 A1 19991018
W0 1999-US24424 W 19991018

The invention involves isolation of nucleic acid mols., the expression of which is upregulated by interleukin-9. The amino acid sequences of the proteins which correspond to the nucleic acid mols. show some structural features of cytokines. The mols. are referred to as T cell inducible factors (TTFs). In addn. to the nucleic acid mols. and the proteins, various uses of the mols. are disclosed. One of the examples describes the use of the mols. in manuf. of antibodies which bind to the TTF protein. Such antibodies, monoclonal or polyclonal, constitute a further feature of the invention as do fragments of said antibodies, chimeric forms, humanized forms, and recombinant forms.
antibodies, chimeric forms, humanized forms, and recombinant forms.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
                 ANSWER 2 OF 7 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
 ACCESSION NUMBER:
                                                                     2002183350 EMBASE
Viral and cellular interleukin-10 (IL-10)-related
 TITLE:
                                                                    viral and Cellular Interleukin-10 (11-10)-related cytokines: From structures to functions.

Dumoutier L.; Renauld J.-C.
J.-C. Renauld, Ludwig Inst. for Cancer Research, UCL 74 59,
Avenue Hippocrate, 74, B-1200 Brussels, Belgium.

jean-christophe.renauld@bru.licr.org
 AUTHOR:
  CORPORATE SOURCE:
                                                                       European Cytokine Network, (2002) 13/1 (5-15).
 SOURCE:
                                                                     Refs: 97
ISSN: 1148-5493 CODEN: ECYNEJ
 COUNTRY:
                                                                      France
                                                                    Journal; General Review
026 Immunology, Sero
029 Clinical Biochem
  DOCUMENT TYPE:
                                                                                               Immunology, Serology and Transplantation Clinical Biochemistry
 LANGUAGE:
                                                                     English
                ARY LANGUAGE: English
The anti-inflammatory and immunosuppressive activities of IL-10 have been extensively studied during the last 10 years. More recently a series of new cytokines, structurally related to IL-10, were described. This family includes mda-7, IL-19, IL-20, IL-TIF/IL-22, and AK155. Most of the biological functions of these cytokines remain to be unraveled but new data are coming out steadily. Although none of these "IL-10 homologs" mimics IL-10 activities, they are likely to be involved in inflammatory processes as well. mda-7, IL-19 and IL-20 form a subfamily within IL-10 homologs, based on conserved amino acid sequences, and on the use of shared receptor complexes. Functional studies have stressed the potential suppressing activity of mda-7 on tumor growth. As for IL-20, its overexpression in transgenic mice led to skin abnormalities, reminiscent of psoriatic lesions in humans. IL-TIF/IL-22 is a Th1 cytokine, and was shown to upregulate the acute phase reactant production by liver cells. Finally, for AK155, originally described as a gene induced upon T cell transformation by Herpes-virus saimiri, functional data are still lacking to determine its biological activities.
                                                                     English
  L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2001:916420 CAPLUS
                                                                                       136:52731
Isolated nucleic acid molecules which encode T cell
  DOCUMENT NUMBER:
  TITLE:
                                                                                       inducible factors (TIFs), the proteins encoded, and uses thereof
                                                                                      Dumoutier, Laure; Louhed, Jamila;
Renauld, Jean-Christophe
Ludwig Institue for Cancer Research, USA
U.S., 24 pp., Cont.-in-part of U.S. Ser. No. 354,243.
CODEN: USXXAM
  INVENTOR (S):
  PATENT ASSIGNEE(S):
  SOURCE:
  DOCUMENT TYPE:
                                                                                       Patent
  LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                                                                        English
                   PATENT NO.
                                                                                                                                                   APPLICATION NO. DATE
                                                                             KIND DATE
                                                                              B1
                                                                                                                                                    US 1999-419568
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                   US 6331613
                   US 6274710
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US 1999-354243
US 2000-751797
                                                                                                                                                                                                              19981026
                     US 6359117
                 Al 20010927 US 2000-751797 20001229
RITY APPLN. INFO.:
US 1998-178973 A2 19981026
US 1999-354243 A2 19990716
US 1999-419568 A1 19991018
The invention involves isolation of nucleic acid mols., the expression of which are upregulated by interleukin-9. The amino acid sequences of the proteins which correspond to the nucleic acid mols. show some structural features of cytokines. In addn. to the nucleic acid mols. and the proteins, various uses of the mols. are disclosed. The mols. are referred to as T cell inducible factors.
  PRIORITY APPLN. INFO.:
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ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS
SSION NUMBER: 2000:291060 CAPLUS
  ACCESSION NUMBER:
                                                                                         132:333389
Isolated nucleic acid molecules which encode T cell
  DOCUMENT NUMBER:
  TITLE:
                                                                                        Isolated nucleic acid molecules which encoundrible factors (TIFs), the proteins encoded, and uses thereof Dumoutier, Laure; Louhed, Jamila; Renauld, Jean-christophe Ludwig Institute for Cancer Research, USA PCT Int. Appl., 46 pp. CODEN: PIXXD2
  INVENTOR(S):
  PATENT ASSIGNEE(S):
  DOCUMENT TYPE:
                                                                                          Patent
                                                                                          English
  LANGUAGE:
  FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                   PATENT NO.
                                                                              KIND DATE
                                                                                                                                                        APPLICATION NO. DATE
                  WO 2000024758 A1 20000504 WO 1999-US24424 19991018 WO 2000024758 AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LK, LS, LY, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CP, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 635917 B1 20010814 US 1998-178973 19981026
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BR 9914777 A 20010912 EP 1999-952321 19991018
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                    WO 2000024758
                                                                                  A1
                                                                                                   20000504
A1 20000515 AU 1999-65206 19991018
BR 9914777 A 20010703 BR 1999-14777 19991018
EP 1131333 A1 20010912 EP 1999-953231 19991018
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.:
                                                                                                                                             US 1998-178973 A 19981026
US 1999-354243 A 19990716
WO 1999-US24424 W 19991018
                  The invention involves isolation of nucleic acid mols. encoding
                  The invention involves isolation of nucleic acid mols. encoding TIFs, the expression of the TIFs which are upregulated by interleukin-9. The amino acid sequences of the TIF proteins which correspond to the nucleic acid mols. show some structural features of cytokines. In addn. to the nucleic acid mols. and the TIF proteins, use of the mols. for detg. effectiveness of interleukin 9, for stimulating STAT protein, for inhibiting activation of STAT protein are disclosed. Also provided are TIF inhibitor comprising antibodies and antisense mols. TIF mutein is useful for alleviating asthma or allergy.

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
   REFERENCE COUNT:
  L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2000:633242 CAPLUS
                                                                                                                                                                                                   DUPLICATE 1
   DOCUMENT NUMBER:
                                                                                          133:320857
                                                                                          Human interleukin-10-related T cell-derived inducible
                                                                                        Human interleukin-10-related T cell-derived inducible factor: molecular cloning and functional characterization as an hepatocyte-stimulating factor Dumoutier, Laure; Van Roost, Emiel; Colau, Didier; Renauld, Jean-Christophe Ludwig Institute for Cancer Research, Brussels Branch and the Experimental Medicine Unit, Christian de Duve Institute of Cellular Pathology, Universite Catholique de Louvain, Brussels, B1200, Belg. Proceedings of the National Academy of Sciences of the United States of America (2000), 97(18), 10144-10149 CODEN: PNASA6; ISSN: 0027-8424 National Academy of Sciences Journal
  TITLE:
  AITTHOR (S) :
  CORPORATE SOURCE:
  SOURCE:
    PUBLISHER:
  DOCUMENT TYPE:
                                                                                          Journal
                 MENT TYPE: Journal

UNAGE: English

IL-10-related T cell-derived inducible factor (IL-TIF or IL-21)

is a new cytokine structurally related to IL-10 and originally identified in the mouse as a gene induced by IL-9 in T cells and mast cells. Here, the authors report the cloning of the human IL-TIF cDNA, which shares 79% amino acid identity with mouse IL-TIF and 25% identity with human IL-10. Recombinant human IL-TIF was found to activate signal transducer and activator of transcription factors-1 and cativate signal transducer and activator of transcription factors-1 and riserval hepatoma cells up-regulated the prodn. of acute phase reactants such as serum amyloid A, alpha.1-antichymotrypsin, and haptoglobin. Although IL-10 and IL-TIF have distinct activities, antibodies directed against the .beta. chain of the IL-10 receptor blocked the induction of acute phase reactants by IL-TIF, indicating that this chain is a common component of the IL-10 and IL-TIF receptors. Similar acute phase reactant induction was obsd. in mouse liver upon IL-TIF injection, and IL-TIF expression was rapidly increased after lipopolysaccharide (LPS) injection, suggesting that this cytokine contributes to the inflammatory response in vivo.

THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 6 OF 7 MEDILINE
                                                                                          English
    REFERENCE COUNT:
   L4 ANSWER 6 OF 7
ACCESSION NUMBER:
                                                                                   MEDLINE
                                                                                                                                                                                                       DUPLICATE 2
                                                                        2010/26044 MEDLINE
20126044 PubMed ID: 10657629
Cloning and characterization of IL-10-related T
cell-derived inducible factor (IL-TIF), a novel
cytokine structurally related to IL-10 and inducible by
IL-9.
    DOCUMENT NUMBER:
    TITLE:
                                                                          Dumoutier L; Louahed J; Renauld J
   AUTHOR:
                                                                         Ludwig Institute for Cancer Research, Brussels, Belgium.
JOURNAL OF IMMUNOLOGY, (2000 Peb 15) 164 (4) 1814-9.
Journal code: 2985117R. ISSN: 0022-1767.
    CORPORATE SOURCE:
    PUB. COUNTRY:
                                                                          United States
                                                                          Journal; Article; (JOURNAL ARTICLE)
                                                                         English
Abridged Index Medicus Journals; Priority Journals
GENBANK-AJ249491; GENBANK-AJ249492
    LANGUAGE:
    OTHER SOURCE:
   ENTRY MONTH:
ENTRY DATE:
                                                                         200003
Entered STN: 20000320
                                                                         Last Updated on STN: 20000320
Entered Medline: 20000309
                     IL-9 is a Th2 cytokine active on various cell types such as T and B lymphocytes, mast cells, and eosinophils, and potentially involved in
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allergy and asthma. To understand better the molecular mechanisms allergy and asthma. To understand better the molecular mechanisms underlying the activity of this cytokine, we used a cDNA subtraction method to identify genes specifically induced by IL-9 in mouse T cells. One of the IL-9-regulated genes isolated by this approach turned out to encode a 180-amino acid long protein, including a potential signal peptide, and showing 22% amino acid identity with IL-10. This protein, designated IL-10-related T cell-derived inducible factor (IL-TIF designated ii-10-related T cell-derived inducible ractor (IL-TIF), is induced by IL-9 in thymic lymphomas, T cells, and mast cells, and by lectins in freshly isolated splenocytes. Experiments concerning the mechanism regulating IL-TIF expression in T cells indicate that IL-9 induction is rapid (within 1 h), does not require protein synthesis, and depends on the activation of the Janus kinase (JAK)-STAT and depends on the activation of the Janus kinase (JAK)-STAT pathway. In vivo, constitutive expression of IL-TIF was detected by RT-PCR in thymus and brain, suggesting that the role of this new factor is not restricted to the immune system. Transfection of HEK293 cells with the IL-TIF CDNA resulted in the production of a glycosylated protein of about 25 kDa that was found to induce STAT activation in mesangial and neuronal cell lines. Further studies will have to address the possibility that some of the IL-9 activities may be mediated by IL-

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TIF
            ANSWER 7 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
                                                   2000:468282 BIOSIS
PREV200000468282
ACCESSION NUMBER:
DOCUMENT NUMBER:
                                                   PREVIOUS PREVIOUS ACUTE phase reactant production by hepatocytes through IL-10Rbeta.

Dumoutier, L. (1); Van Roost, E. (1); Colau, D. (1); Renauld, J.-C. (1)

(1) Brussels Branch, Ludwig Institute for Cancer Research, Procede Relegion
TITLE:
AITTHOR (S):
CORPORATE SOURCE:
                                                   Brussels Belgium
SOURCE:
                                                    Immunology Letters, (September, 2000) Vol. 73, No. 2-3, pp.
                                                   Meeting Info.: 24th European Immunology Meeting of the European Federation of Immunological Societies (EFIS) Poznan, Poland September 23-26, 2000 European Federation of Immunological Societies
                                                       ISSN: 0165-2478.
                                                    Conference
DOCUMENT TYPE:
LANGUAGE:
                                                   English
SUMMARY LANGUAGE:
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            FILE 'MEDLINE, CAPLUS, EMBASE, BIOSIS' ENTERED AT 18:04:22 ON 24 JUN 2002
431 S DUMOUTIER L?/AU OR LOUAHED J?/AU OR RENAULD J?/AU
71 S L1 AND STAT?
11 S L2 AND TIF
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PREV200100264637
ACCESSION NUMBER:
DOCUMENT NUMBER:
                                                   Human IL-22 (IL-TIF) is a novel homolog of IL-10 that phosphorylates STAT 3 in colon carcinoma cells expressing the IL-22Rl chain.
Nagalakshmi, Marehalli L. (1); Parham, Christi (1); Rascle,
AUTHOR (S):
                                                   Ann (1); Menon, Satish (1); Moore, Kevin (1); de Weal
Malefyt, Rene (1)
(1) DNAX Research Institute, 901 California Ave, Palo Alto,
CORPORATE SOURCE:
                                                   CA, 94304 USA
FASEB Journal, (March 8, 2001) Vol. 15, No. 5, pp. A1052.
SOURCE:
                                                   Meeting Info.: Annual Meeting of the Federation of American
Societies for Experimental Biology on Experimental Biology
2001 Orlando, Florida, USA March 31-April 04, 2001
ISSN: 0892-6638.
DOCUMENT TYPE:
                                                    Conference
                                                    English
SUMMARY LANGUAGE:
            RRY LANGUAGE: English

DNA database mining and bioinformatics have revealed the existence of several novel proteins that have 'IL-10 like' structural motifs. Human
           Expressed in activated T cell cDNA libraries. The L-22Rl chain mRNA is highly upregulated in ormal as teverled coll cDNA is receptor chain was at very low levels in resting and activated T coll cDNA the IL-10R2 (CRP2-4) chains. This interaction leads to the activation of signal transducer and activator of transcription factors (STATs-1 and -3). Quantitative PCR analysis (TaqMan) showed that human IL-22 mRNA is expressed in activated T cell cDNA libraries. The IL-22Rl chain mRNA is highly upregulated in normal and diseased colon cell libraries. Expression of this receptor chain was at very low levels in resting and activated monocyte, T, B and dendritic cell cDNA libraries. The second receptor component, the IL-10R2 chain is known to be expressed ubiquitously. In addition, we have shown that human IL-22 obtained from transient transfections activates STAT-3 in a colon carcinoma cell line, Colo205. Unstimulated cells expressed levels of IL-22Rl chain mRNA comparable to the human hepatoma cell line, HepG2. Levels of mRNA of the acute phase proteins - serum amyloid A, alpha - Antichymotrypsin and Haptoglobin were upregulated in IL-22 treated Colo205 cells. Future studies will be directed to identify the biological activities of this protein.
 L6 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC. ACCESSION NUMBER: 2000:440537 BIOSIS DOCUMENT NUMBER: PREV200000440537
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L2 L3

PREV200000440537
Human interleukin-10-related T cell-derived inducible factor: Molecular cloning and functional characterization as an hepatocyte-stimulating factor.
Dumoutier, Laure; Van Roost, Emiel; Colau, Didier; Renauld, Jean-Christophe (1)
(1) Brussels Branch and Experimental Medicine Unit, Ludwig Institute for Cancer Research, Christian de Duve Institute AUTHOR (S): CORPORATE SOURCE: of Cellular Pathology, Universite Catholique de Louvain,

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Avenue Hippocrate 74, B1200, Brussels Belgium Proceedings of the National Academy of Sciences of the United States of America, (August 29, 2000) Vol. 97, No. 18, pp. 10144-10149. print. ISSN: 0027-8424.
SOURCE:
DOCUMENT TYPE:
                                                                   Article
             UAGE: English
ARY LANGUAGE: English
IL-10-related T cell-derived inducible factor (IL-TIF or IL-21)
is a new cytokine structurally related to IL-10 and originally identified
in the mouse as a gene induced by IL-9 in T cells and mast cells. Here, we
report the cloning of the human IL-TIF cDNA, which shares 79%
amino acid identity with mouse IL-TIF and 25% identity with
human IL-10. Recombinant human IL-TIF was found to activate
signal transducer and activator of transcription factors-1 and -3 in
several hepatoma cell lines. IL-TIF stimulation of HepG2 human
hepatoma cells up-regulated the production of acute phase reactants such
as serum amyloid A, alphal-antichymotrypsin, and haptoglobin. Although
IL-10 and IL-TIF have distinct activities, antibodies directed
aqainst the beta chain of the IL-10 receptor blocked the induction of
LANGUAGE:
                                                                 English
SUMMARY LANGUAGE:
               IL-10 and IL-TIF have distinct activities, antibodies directed against the beta chain of the IL-10 receptor blocked the induction of acute phase reactants by IL-TIF, indicating that this chain is a common component of the IL-10 and IL-TIF receptors. Similar acute phase reactant induction was observed in mouse liver upon IL-TIF injection, and IL-TIF expression was found to be rapidly increased after lipopolysaccharide (LPS) injection, suggesting that this cytokine contributes to the inflammatory response in vivo.
=> s (stat (1N) 3) (P) ((IL (1N) 21) or (IL (1N) 22))
L7 6 (STAT (1N) 3) (P) ((IL (1N) 21) OR (IL (1N) 22))
PROCESSING COMPLETED FOR L7
L8 3 DUP REM L7 (3 DUPLICATES REMOVED)
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                                                                 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC. 2001:264637 BIOSIS PREV200100264637
               ANSWER 1 OF 3
ACCESSION NUMBER:
DOCUMENT NUMBER:
                                                                 Human IL-22 (IL-TIF) is a
TITLE:
                                                                 novel homolog of IL-10 that phosphorylates STAT
3 in colon carcinoma cells expressing the IL-22R1
AUTHOR (S):
                                                                  Nagalakshmi, Marehalli L. (1); Parham, Christi (1); Rascle,
                                                                 Ann (1); Menon, Satish (1); Moore, Kevin (1); de Weal Malefyt, Rene (1)
(1) DNAX Research Institute, 901 California Ave, Palo Alto,
CORPORATE SOURCE:
                                                                 CA, 94304 USA
FASEB Journal, (March 8, 2001) Vol. 15, No. 5, pp. A1052.
SOURCE:
                                                                   print.
                                                                   Meeting Info.: Annual Meeting of the Federation of American
                                                                 Societies for Experimental Biology on Experimental Biology 2001 Orlando, Florida, USA March 31-April 04, 2001 ISSN: 0892-6638.
DOCUMENT TYPE:
                                                                  Conference
LANGUAGE:
                                                                  English
SUMMARY LANGUAGE:
               RRY LANGUAGE: English

DNA database mining and bioinformatics have revealed the existence of several novel proteins that have 'IL-10 like' structural motifs. Human
               IL-22 is one such proteins that have 'II-10 like' structural motifs. Hums IL-22 is one such protein has been described as a hepatocyte stimulatory factor inducing the production of acute phase proteins from hepatocytes. II-22 binds to its specific receptor comprising the II-22 R1 and the IL-10R2 (CRF2-4) chains. This interaction leads to the activation of signal
               (CRF2-4) chains. This interaction leads to the activation of signal transducer and activator of transcription factors (STATS-1 and -3). Quantitative PCR analysis (TaqMan) showed that human IL-22 mRNA is expressed in activated T cell cDNA libraries. The IL-22Rl chain mRNA is highly upregulated in normal and diseased colon cell libraries. Expression of this receptor chain was at very low levels in resting and activated monocyte, T, B and dendritic cell cDNA libraries. The second receptor component, the IL-10R2 chain is known to be expressed ubiquitously. In addition, we have shown that human IL-22 obtained from transient transfections activates STAT-3 in a colon carcinoma cell line, Colo205. Unstimulated cells expressed levels of IL-22Rl chain mRNA comparable to the human hepatoma cell line, HepG2. Levels of mRNA of the acute phase proteins - serum amyloid A, alpha - Antichymotrypsin and Haptoglobin were upregulated in IL-22 treated Colo205 cells. Future studies will be directed to identify the biological activities of this protein.
                 directed to identify the biological activities of this protein.
               ANSWER 2 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER:
DOCUMENT NUMBER:
                                                                 2002:261534 BIOSIS
PREV200200261534
                                                                  The interleukin-2 (IL-2) receptor common gamma chain (gammac) is a required signaling component of the IL-21 receptor and supports IL-21-induced cell proliferation via
TITLE:
AUTHOR (S):
                                                                  Habib, Tania J. (1); Weinberg, Kenneth I.; Kaushansky,
                                                                    (1) University of Washington, Seattle, WA USA
CORPORATE SOURCE:
                                                                 Blood, (November 16, 2001) Vol. 98, No. 11 Part 1, pp. 818a. http://www.bloodjournal.org/. print. Meeting Info.: 43rd Annual Meeting of the American Society of Hematology, Part 1 Orlando, Florida, USA December 07-11,
SOURCE:
                                                                   ISSN: 0006-4971.
DOCUMENT TYPE:
                                                                   Conference
LANGUAGE:
              UAGE: English

The newly described lymphokines human and murine interleukin-21
(IL-21) are 131 and 122 amino acid polypeptides
produced by activated CD4+ lymphocytes. Structurally, IL-
21 is most closely related to IL-2 and IL-15, and although
IL-21 alone cannot support the proliferation of any
subclass of lymphocytes, it profoundly affects the growth and activation
state of B-, T and NK cells in concert with other lymphokines or stimuli.
The biological effects of IL-21 are mediated through a
538 amino acid class I member of the hematopoietic cytokine receptor
superfamily (IL-21Ralpha). Although the complete IL-21R has not yet been
defined, IL-21Ralpha is structurally similar to the beta subunit of the
receptor for IL-2 and IL-15 (IL-2/15Rbeta) and thus, might utilize the
                                                                  English
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gammac chain for signaling. To test this hypothesis we used the
gammac-deficient X-linked severe combined immunodeficiency B cell line JT,
and JT cells reconstituted with gammac (JT-gammac). Moreover, we examined
the functional requirement of both gammac and the gammac-associated Janus
family tyrosine kinase 3 (JAK3) in IL-21-induced
proliferation of pro-B-lymphoid cells engineered to express human
IL-21Ralpha (BaF3/IL-21Ralpha). Using immunoprecipitation and Western
blotting we found that IL-21 stimulated prominent
tyrosine phosphorylation (Tyr-P) of JAK1 and JAK3 in BaF3/IL-21Ralpha,
primary murine splenic B cells, and JT-gammac. In contrast, IL21 failed to induce Tyr-P of JAK1 and JAK3 in JT cells. Moreover,
STATs 1, 3 and 5 underwent Tyr-P in response to
IL-21 in BaF3/IL-21Ralpha-, primary B- and JT-gammac
cells but not in JT cells. To determine the functional role of gammac in
IL-21 signaling, we conducted MTT proliferation assays
with JT-gammac cells and found a specific proliferative response to
IL-21; JT cells failed to respond to IL21. Neutralizing monoclonal antibodies specific for the gammac
chain effectively inhibited IL-21-induced growth of
BaF3/IL-21Ralpha cells in an MTT assay, further supporting a functional
role for this molecule in IL-21R signaling. Finally, the potent and
specific JAK3 tyrosine kinase inhibitor WHI-P131 significantly reduced
IL-21-induced proliferation of BaF3/IL-21Ralpha cells
relative to the vehicle control. Taken together, these results
definitively demonstrate that IL-21-mediated signaling
requires the gammac chain of the IL-2 receptor, and indicate that JAK3 is
an essential transducer of gammac-dependent survival and/or mitogenic
signals induced by this cytokine.

ANSWER 3 OF 3 MEDLINE DUPLICATE 1
SONO NUMBER: 20469498 PubMed ID: 10875937
E: Interleukin (IL)-222, a novel human cytokine that signals
through the interferon receptor-related proteins CRF2-4 and
IL-22R.
Xie M H; Aggarwal S; Ho W H; Foster J; Zhang Z; Stinson J;
Wood W I; Goddard A D, Gurney A L

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L8 ANSWER 3 OF 3
ACCESSION NUMBER:
DOCUMENT NUMBER:
TITLE:
AUTHOR:
                                                       wood W I; Goddard A D; Gurney A L
Department of Molecular Biology, Genentech, Inc., South San
Francisco, California 94080, USA.
JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Oct 6) 275 (40)
CORPORATE SOURCE:
SOURCE:
                                                        31335-9.
                                                         Journal code: 2985121R. ISSN: 0021-9258.
                                                        United States
PUB. COUNTRY:
                                                        Journal; Article; (JOURNAL ARTICLE)
English
LANGUAGE:
                                                        Priority Journals
GENBANK-AF279437; GENBANK-AF286095
FILE SEGMENT:
OTHER SOURCE:
            ONDREE: GENBANK-AF279437; GENBANK-AF286095

Y MONTH: 200011

Y DATE: Entered STN: 20010322

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Entered Medline: 20001113

We report the identification of a novel human cytokine, distantly related to interleukin (IL)-10, which we term IL-22.

IL-22 is produced by activated T cells. IL-
22 is a ligand for CRF2-4, a member of the class II cytokine receptor family. No high affinity ligand has yet been reported for this receptor, although it has been reported to serve as a second component in IL-10 signaling. A new member of the interferon receptor family, which we term IL-22R, functions as a second component together with CRF2-4 to enable IL-22 signaling. IL-22 does not bind the IL-10R. Cell lines were identified that respond to IL-02 by activation of STATS 1, 3, and 5, but were unresponsive to IL-10. In contrast to IL-10, IL-22 does not inhibit the production of proinflammatory cytokines by monocytes in response to LPS nor does it impact IL-10 function on monocytes, but it has modest inhibitory effects on IL-4 production from Th2 T cells.
ENTRY MONTH:
                                                        200011
 => dis his
               (FILE 'HOME' ENTERED AT 18:03:53 ON 24 JUN 2002)
              FILE 'MEDLINE, CAPLUS, EMBASE, BIOSIS' ENTERED AT 18:04:22 ON 24 JUN 2002 431 S DUMOUTIER L?/AU OR LOUAHED J?/AU OR RENAULD J?/AU
                                    431 S DUMOUTIER L?/AU OR LOUAHED J?/AU OR RENAULD J?/AU
71 S L1 AND STAT?
11 S L2 AND TIF
7 DUP REM L3 (4 DUPLICATES REMOVED)
1 S (STAT (1N) 3) (P) TIF?
2 S (STAT (1N) 3) AND TIF?
6 S (STAT (1N) 3) (P) ((IL (1N) 21) OR (IL (1N) 22))
3 DUP REM L7 (3 DUPLICATES REMOVED)
L2
L3
L4
L5
L6
L7
L8
=> end ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
 LOGOFF? (Y) /N/HOLD: y
COST IN U.S. DOLLARS
                                                                                                                                         SINCE FILE
ENTRY
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                                                                                                                                                        59.32
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 STN INTERNATIONAL LOGOFF AT 18:13:42 ON 24 JUN 2002
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WEST Search History

DATE: Monday, June 24, 2002

Set Name side by side	Query	Hit Count	Set Name result set
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L15	(stat adj 3) and (IL adj 10)	3	L15
L14	(stat adj 3) and ((IL adj 21) or (IL adj 22))	2	L14
L13	(stat adj 3) same ((IL adj 21) or (IL adj 22))	0	L13
L12	(stat? or (IL adj 21) or (IL adj 22))	2108917	L12
L11	L10 and (stat? or (IL adj 21) or (IL adj 22))	7	L11
L10	(dumoutier)[IN] OR (louahed)[IN] or (renauld) [in]	154	L10
L9 ⁻	(dumoutier)[IN] OR (louahed)[IN]	20	L9
L8	(ulex adj europaeus adj II) or UEAII	11	L8
L7	L6 and mbl	2	L7
L6	(stahl)[IN] OR (lekowski)[IN]	3181	L6
L5	(murine or mouse) same (inhibit\$4) same (myoblast\$4) same (different\$4)	2	L5
L4	striamin	1	L4
L3	L2 and striamin	1	L3
L2	(wadhwa)[IN] OR (kaul)[IN] or (reddel)[in]	839	L2
L1	(wadhwa)[IN] OR (kaul)[IN]	816	L1

END OF SEARCH HISTORY

FILE 'MEDLINE, CAPLUS, EMBASE, BIOSIS' ENTERED AT 18:04:22 ON 24 JUN 2002
L1 431 S DUMOUTIER L?/AU OR LOUAHED J?/AU OR RENAULD J?/AU
L2 71 S L1 AND STAT?
L3 11 S L2 AND TIF
L4 7 DUP REM L3 (4 DUPLICATES REMOVED)
L5 1 S (STAT (1N) 3) (P) TIF?
L6 2 S (STAT (1N) 3) AND TIF?
L7 6 S (STAT (1N) 3) (P) ((IL (1N) 21) OR (IL (1N) 22))
L8 3 DUP REM L7 (3 DUPLICATES REMOVED)